NATIONAL WEATHER SERVICE
WESTERN REGION
SALT LAKE CITY, UTAH

MARCH 25, 2003

REGIONAL DIRECTOR

To Western Region WFOs - A compliment! I know the implementation of IFPS has been, still is, and will continue to be challenging. I commend each and every office for their hard work and commitment to make the grids seamless! Carl Gorski recently received the following message from an NWS employee, outside Western region:

"We've noticed that the WR grids are easily the "prettiest" in the nation. How have you achieved that? I realize that the terrain sort of forces the issue a bit, but still you don't see the 'blockiness' that the rest of the regions (ours included) do. Are WR offices using a common methodology for populating their grids? It sure looks like they are working from model data, rather than working with the rolling database. Our grids are decent, but we're learning that beauty matters! How are you doing this?"

This says it all!

DEPUTY REGIONAL DIRECTOR

Recent Outreach Activities

WFO Medford meteorologist Sven Nelaimischkies answers a weather question.

Brookings Beachcomber's Festival:
Sven Nelaimischkies and Ryan Sandler, meteorologists at WFO Medford, spent the weekend of March 22-23, 2003, at the Beachcomber's Festival in Brookings, Oregon. Sven and Ryan, who are the marine focal points at WFO Medford, participated at this festival to enhance their outreach to the coastal community. The National Weather Service booth was of great interest to the nearly 1000 people who attended the festival. Many people visited the booth to watch the severe weather videos, pick up brochures, or see a demonstration of the wave tank. The color cloud charts were definitely a crowd favorite. Sven and Ryan also provided two one-hour presentations on Marine Coastal Weather to a total of 40 people and gave an interview to a local radio station that promoted the NWS, as well as the upcoming presentation.

METEOROLOGICAL SERVICES DIVISION

Gridded Forecast of the Week: This week's Gridded Forecast of the Week is a grid forecast made by lead forecaster, Valerie Mills, at WFO Boise. Valerie did an excellent job updating a MaxT forecast grid to incorporate the meso-scale influence that an area of deep snow cover would have on maximum temperatures. By utilizing the proper tools, the MaxT grid was appropriately modified for this relatively small area, without inducing other non-meteorological discontinuities into the grid forecast. The link, below, contains graphics and a more detailed description of this effort. Nice work, Valerie!

http://www.wrh.noaa.gov/boise/BOIReports/Grid_case.shtml

Statement of the Week: This week's statement of the week is an winter storm outlook issued by lead forecaster Paul Tolleson of WFO Portland. The WFO did an excellent job forecasting the big snow event in the Cascades on March 5-8. The Cascades received four to five plus feet of snow over a three and one-half day period (68 inches fell at Timberline Lodge). Initial winter storm warnings achieved 32 hours lead time and the winter storm outlook below was issued two and one-have days before the event. Great work Paul, and WFO Portland!

WWUS86 KPQR 032230
SPSPQR
ORZ011-013-WAZ019-050000-

WINTER WEATHER OUTLOOK
NATIONAL WEATHER SERVICE PORTLAND OR
230 PM PST MON MAR 3 2003

...WINTER STORM WEDNESDAY THROUGH SATURDAY FOR THE CASCADES IN LANE COUNTY...THE NORTHERN OREGON CASCADES AND THE SOUTH WASHINGTON CASCADES...

SIGNIFICANT SNOW ACCUMULATIONS ARE LIKELY IN THE SOUTH WASHINGTON AND NORTH AND CENTRAL OREGON CASCADES WEDNESDAY THROUGH SATURDAY. A SERIES OF COOL WEATHER DISTURBANCES COMING IN FROM THE NORTHWEST ARE EXPECTED TO PRODUCE THE SNOW. THE SNOW WILL LIKELY BEGIN LATE TUESDAY NIGHT OR ON WEDNESDAY...THEN CONTINUE AT TIMES INTO SATURDAY. SEVERAL FEET OF SNOW ARE POSSIBLE...ESPECIALLY AT THE SKI RESORTS...THROUGH SATURDAY.

SNOW LEVELS WILL TEND TO RANGE BETWEEN 3000 AND 4000 FEET...AT TIMES FALLING TO BETWEEN 2000 AND 3000 FEET. THIS WILL BE BELOW THE MAIN PASSES THROUGH THE CASCADES...AND OCCASIONALLY DROPPING INTO THE HIGHER CASCADE FOOTHILLS AND COAST RANGE.

LISTEN TO NOAA WEATHER RADIO OR YOUR FAVORITE WEATHER NEWS

SOURCE FOR THE LATEST INFORMATION OR UPDATES ON THE MOUNTAIN SNOW THIS WEEK.

$$

TOLLESON

SCIENTIFIC SERVICES DIVISION

Western Region IFPS Verification and Analysis Package: Recently, two components of Western Region's effort to support IFPS verification have been delivered to Western Region Forecast offices.

First, an analysis system developed by Tim Barker (SOO, Boise) and Les Colin (Lead Forecaster, Boise) that was initially presented at the Western Region IFPS workshop in January has been made available for download on the IFPS smartTool Repository (http://isl715.nws.noaa.gov/STR/index.php3). However, it hasn't been advertised beyond it's mere availability on the server. The MatchObsAll analysis system, written by Tim Barker, consists of a series of GFESuite procedures and smartTools that run on an office's local GFE development computer. This system uses both a model background field and previous analysis, as well as METAR, mesoWest, and marine observations to produce an analysis on the same grid being produced by local IFPS/GFE. Observation correction is done using the SERP algorithm (based on the SERP smartTool), producing two analyses at each hour, one based on the model background field and one based on the previous hours analysis. These two analyses are averaged together, producing the final analysis, which limits the affect of observational data used in the observation correction. In addition, the system is set to rerun several previous hours of analysis at each time step to take advantage of new data and minimize data latency. Because this analysis system is run at the local office on the same grid (i.e. same domain and resolution) it can easily be used for support of IFPS operations as well as gridded verification of the Official gridded forecast.

Second, as an action from the Western Region IFPS workshop in January, I have completed the redesign of the IFPS verification system that I put together and sent out to WR offices last Fall. The redesigned system is based on work done by Jeff Davis (WFO Tucson) that utilizes separate mutable databases in the GFESuite to archive forecast, observed and error grids based on the the Fcst database. Because this system represents a complete redesign, the procedures and smartTools that were made available last Fall have now become obsolete. In addition to changing the underlying database structure of the system, the system will now compute error grids for MaxT, MinT, QPF, and Winds and can easily be configured to add more weather elements. Importantly, this system has also been configured to take advantage of the above MatchObsAll analysis system developed by Tim Barker. The installation of the system has been simplified greatly in order to compartmentalize the configuration and to minimize the amount of hands on work needed. While there some manual configuration is required (site id, host id, etc...), most of the setup is automated using an install script.

In response to the decision to make this system mandatory at the IFPS workshop, all Western Region forecast offices will have the system installed and running by May 1st, 2003.

Two Western Region Technical Attachments that describe both systems are:

http://www.wrh.noaa.gov/wrhq/03TAs/0301/index.html
http://www.wrh.noaa.gov/wrhq/03TAs/0302/index.html

SSD Supplementals Completed: Four NWS Directive System Supplementals from WR SSD can be viewed on the National Directives System Home Page under section 20-1, Training and Education, at http://www.nws.noaa.gov/directives/ . These Western Region Supplementals can also be viewed on the Western Region intranet page under the ADMIN/ROML section. The supplementals are updates of previous WR ROMLs. They are:

03-2003	Description of Western Region''s Videotape, Slide, and Audio Cassette Library
04-2003	Forecaster Development Program - Western Region
05-2003	Guidelines for Scientific and Technical Papers by Western Region Employees
06-2003	Weather Event Simulator Implementation and Operations Policy - Western Region

Technical Attachment Published: The first Western Region Technical Attachment of 2003, Analysis of a Heavy Snow Event over East Central Nevada Using the Weather Event Simulator, by Steve Apfel, WFO Elko SOO, has been posted to the Western Region home page at http://www.wrh.noaa.gov/ under the "Technical Attachment" section. Steve's TA shows how Equivalent Potential Vorticity can be used to analyze vertical and slantwise convection in a strong frontogenetic forcing situation. Check it out - you may find it useful for local office training.

WES TA-Lites: Twenty-one WES TA-Lites have been posted to the Western Region home page. SSD congratulates all on their efforts in producing these and encourages all offices to take a look at what your regional counterparts have been choosing for WES Simulations. The summer WES TA-Lite writeups are due to SSD by July 1, 2003.

SYSTEMS OPERATIONS DIVISION

Western Region AWIPS Status: Installation of the AWIPS pre-processors (PXs) begins in earnest in Western Region this month. Eight Western Region sites are scheduled to install their PXs this week. Operational Build 1(OB1) installations will begin in the region April 1, 2003. PX and OB1 installations will be completed at all Western Region sites in May 2003. As a heads up, OB2 is planned for field installation beginning the end of July 2003 and OB3 is slated for release the end of February 2004.

New NOAA Weather Radio (NWR) Installations: The Capitol Peak, WA, NWR is on

the air and will become official April 4, 2003. This NWR replaced the Olympia transmitter which is now planned to be moved further south to provide added coverage to Oregon and Washington. The installation was performed by cooperators and the Seattle WFO electronics staff.

Other NWR Activities: The Pocatello WFO replaced their NWR UHF link transmitter with a narrow-band compliant transmitter.

Electronics technicians at WFO Tucson and Joe Lachacz, WRH RMS, replaced the internal RF cabling and other transmission line components on the Mount Lemmon NWR.

Radiosonde Replacement System (RRS) Pilot Training: Regional Maintenance Specialists Jack Lauritzen and Kevin Bolton are attending a national Radiosonde Replacement System (RRS) training course this week at the NWSTC. The goal of the RRS pilot training course is to prepare course content and materials for use in the fully functional NWSTC RRS maintenance course.